



$$2.) T(n) = T(n/2) + 5 \quad T(1) = 1$$

$$T\left(\frac{n}{2}\right) = T\left(\frac{n}{2^2}\right) + 5$$

$$T\left(\frac{n}{2^2}\right) = T\left(\frac{n}{2^3}\right) + 5$$

↓

$$T\left(\frac{n}{2^{l-1}}\right) = T\left(\frac{n}{2^l}\right) + 5$$

$$T\left(\frac{n}{2^l}\right) = T(1)$$

$$\frac{n}{2^l} = 1$$

$$n = 2^l$$

$$l = \log_2 n$$

$$T(n) = (T(1) + 5) * \log_2 n$$

$$T(n) = 6 * \log_2 n$$

Logo, Complexidade de Tempo e espaço da Função é  $O(\log n)$